

REMARKS

This is in full and timely response to the above-identified Office Action. The above listing of the claims replaces all prior versions, and listings, of claims in the application. Reexamination and reconsideration in light of the proposed amendments and the following remarks are respectfully requested.

Drawings

In response to the objection to the drawings under 37 CFR 1.83(a) it is proposed to present an appendix wherein the claimed surfaces are indicated. More specifically, it the appended drawing identifies the opposed surfaces which can be adapted to slide on a track or the like type of guide and which allow the color wheel housing 200 to slide back and forth in the direction indicated by the arrow which has been additionally provided. As will be appreciated, this movement is similar to a CD tray which slides in and out of a CD deck or computer.

This appended drawing should not, however, be taken as a drawing amendment and is not intended to be a replacement sheet.

Claim Objections

In this Office Action it is asserted that color wheel, color wheel cartridge, color wheel disc are used interchangeably without notification. This position is incorrect. The terms are not used "interchangeably." The objection then states that in claim 14 a color wheel is defined as including a color wheel disc and that in other claims, such as claims 1-13, it is unclear as to whether the term color wheel means a color wheel disc or whether in fact the term color wheel throughout the claims is equivalent to the color wheel cartridge.

For the sake of rejection it is then stated that the term color wheel will be held to be the same as color wheel cartridge "except" where this usage would prevent the claim from making sense in which case it will be interpreted as being a color wheel disc.

This interpretation reveals non-uniformity of application and a level of confusion that renders all of the rejections untenable inasmuch as the claims are being effectively rewritten for the sake of rejection via the above mentioned interpretation. Claim 1 of claims 1-13 is directed to a color wheel cartridge (viz., is a combination claim) while claim 14 of claims 14-20 is directed to a color wheel per se (viz., is a sub-combination claim).

It is reasonable to recite a color wheel as being an element which is received in the cartridge, while it is equally reasonable to consider to the color wheel *per se* as comprising a disc and a memory which is disposed on the disc. The perceived lack of clarity is a result of improper consideration of the claims and the change in scope and the subject matter that is recited in the various claim sets. Favorable reconsideration of this objection is respectfully requested.

The dependency of claims have been reviewed and corrected.

Allowable Subject Matter

The indication that claims 13, 24 and 28 contain allowable subject matter and would be allowable pending resolution of the objections to the claims, is noted with appreciation. However, it is, as will be appreciated as the traverse of the rejections proceeds, premature to rewrite these claims into independent form.

Rejections under 35 USC § 112

In this response the claims have been reviewed and clarified via suitable amendment. These amendments overcome the rejection of claims 9-11 and 22-30.

Rejections under 35 USC § 102

The rejection of claims 1-3, 21, 25 and 33 under 35 USC § 102(e) as being anticipated by Inamoto, is respectfully traversed.

Inamoto is alleged to disclose a "removable" color wheel housing for receiving a color wheel. It is acknowledged that the cartridge housing is for cooling not removing,

but maintains that "all parts of a projector can be removed even if it requires some degree of difficulty."

However, this rejection is improperly based on the unfounded assumption that "all parts" of a projector can be removed (presumably but not necessarily without partial destruction thereof). This suggests that the rejection is attempting to assert inherency. "Inherency" of course demands that a given characteristics occurs in all situations not just in selected instances. Applicant request a showing that "all parts" of a projector are always removable under all circumstances. If this showing cannot be made, it is submitted that the position taken for rejection is not tenable and should be withdrawn.

A further issue which is raised by this rejection is whether it is proper to refer to the housing shown in Inamoto, as being "color wheel housing". A more rational interpretation of this element is that it is a blower housing in which a color wheel is disposed. Indeed, Inamoto refers to housing 90 as a fan cover as different from a housing. Further, in this rejection, the color wheel housing transitions from color wheel housing to a color wheel "cartridge" housing and then returns to a color wheel housing. However, Inamoto does not disclose that the fan cover is any form of cartridge. For at least this reason a *prima facie* case of anticipation cannot be established.

Claim 1

Claim 1 (as amended) recites:

A color wheel cartridge, comprising:
a **readily** removable color wheel housing for receiving a
readily removable color wheel, wherein the color wheel
housing is configured to be **readily removed** from and
inserted into an operative position, and has a cutout
portion to permit light to be projected therethrough to
impinge on only a portion of a color wheel disposed
therein. (Emphasis added)

Inasmuch as claim 1 calls for a color wheel "cartridge" and inasmuch as the rejection is devoid of any indication that the preamble limitation of a "color wheel cartridge" is not being given any patentable weight, it is submitted that the Inamoto reference fails to disclose all of the claimed limitations.

The purpose set forth in the [preambles of the] claims themselves, "is more than a mere statement of purpose; and that language is essential to particularly point out the invention defined by the claims" *In re Bullock*, 604 F.2d 1362, 1365, 203 USPQ 171, 174 (CCPA 1979).

The American Heritage® Dictionary of the English Language: Fourth Edition. 2000 defines "cartridge" as:

NOUN: 1a. A cylindrical, usually metal casing containing the primer and charge of ammunition for firearms. b. Such a casing fitted with a bullet. c. A similar piece of ammunition, such as a shotgun shell. 2. A case filled with high explosives, used in blasting. 3. **A small modular unit designed to be inserted into a larger piece of equipment:** an ink cartridge; a disposable cartridge of caulking compound. 4. A removable case containing the stylus and electric conversion circuitry in a phonograph pickup. 5a. A case containing magnetic tape in a reel; a cassette. b. A case containing a ribbon in a spool, for use in printers and electric typewriters. 6. A lightproof case with photographic film that can be loaded directly into a camera. (Emphasis added)

To even further clarify the subject matter of claim 1 over the arrangement disclosed in Inamoto, claim 1 has been amended in this response to call for the color wheel cartridge to comprise a readily removable color wheel housing for receiving a color wheel, wherein the color wheel housing is configured to be readily removed from and inserted into an operative position. As will be appreciated, the fan cover is not disclosed as being removable *per se* (as acknowledged in this rejection), and is most

certainly not configured to be readily removed from and inserted into an operative position.

Claim 21

Claim 21, as amended, calls for:

A projector, comprising:
means for **readily** replacing a color wheel; and
means for directing light from a light source through at
least a portion of a color wheel. (Emphasis added)

It is submitted that Inamoto does not disclose any means for replacing a color wheel let alone means for readily replacing a color wheel. At best, Inamoto discloses a color wheel enclosed in a fan cover, wherein the fan cover can rationally be seen as structure which actually inhibits access to the color wheel and therefore inhibits its replacement.

Replacement of the color wheel is not disclosed and there is no structure/means which could meet the claimed "means for replacing a color wheel" limitation.

The first step in construing a means-plus-function limitation is to identify the function explicitly recited in the claim. Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1376, 58 USPQ2d 1801, 1806 (Fed. Cir. 2001). The next step is to identify the corresponding structure set forth in the written description that performs the particular function set forth in the claim. Section 112 paragraph 6 does not "permit incorporation of structure from the written description beyond that necessary to perform the claimed function." Micro Chem., Inc. v. Great Plains Chem. Co., 194 F.3d 1250, 1257-58, 52 USPQ2d 1258, 1263 (Fed. Cir. 1999). Structural features that do not actually perform the recited function do not constitute corresponding structure and thus do not serve as claim limitations. Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc., 145 F.3d 1303, 1308-09, 46 USPQ2d 1752, 1755-56 (Fed. Cir. 1998); see B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1424, 43 USPQ2d 1896, 1900 (Fed. Cir. 1997) ("[S]tructure disclosed in the specification is 'corresponding' structure only if the

specification or *prosecution* history clearly links or associates that structure to the function recited in the claim.”).

This rejection states that the “means for replacing a color wheel is the color wheel which inherently can be replaced . . . somehow . . .” However, this fails to establish a credible position. How can the wheel *per se* be the means to replace itself?

Claim 25

Claim 25 (as amended) recites:

A projector, comprising:
a **readily replaceable** color wheel **cartridge** including housing with a spindle for receiving a color wheel and with a cutout portion to permit light to be projected therethrough to impinge on only a portion of a color wheel disposed therein, a color wheel disposed on the spindle, and a motor for driving the spindle; and
means for directing light from a light source through at least a portion of a color wheel. (Emphasis added)

It is submitted that Inamoto does not disclose a cartridge let alone one that is readily replaceable. As such a *prima facie* case of anticipation cannot be established.

Claim 33

Claim 33 (as amended) calls for:

A projector, comprising:
a user replaceable color wheel adapted for selective disposition in a color wheel cartridge housing.

It is submitted that Inamoto, while showing a color wheel, does not disclose that the color wheel is adapted for selective disposition in a color wheel cartridge housing. This claim therefore distinguishes over the Inamoto reference for at least this reason.

Rejections under 35 USC § 103

- 1) The rejection of claims 409, 11-12, 14-20, 22-23, 26-27, 29-32 and 34-35 under 35 USC § 103(a) as being unpatentable over Inamoto and further in view of Kunzuman, is respectfully traversed.

First, it is not what semi-rational reading of claims on disclosed subject matter that is the key to an obvious rejection under § 103, but rather what the disclosure of the reference taken as whole would suggest to the hypothetical person of ordinary skill in the art. Thus, the question is would the disclosure of Inamoto suggest to the hypothetical person of ordinary skill that the fan cover of Inamoto is such as to a readily removable movable structure. The position that anything can be removed given enough trouble and/or sufficient destruction, is no longer applicable and a rational interpretation of what is disclosed by the references is now essential. Without this a *prima facie* case of obviousness cannot be established.

More specifically, in rejecting claims under 35 U.S.C. §103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

In this rejection is stated that Inamoto discloses a color wheel "cartridge." However this is incorrect. There is no cartridge disclosed in the Inamoto reference and the metamorphosis of housing → cartridge → housing used in the anticipation rejection is equally incorrect in this instance. In fact it is worse. It cannot be "interpreted" that a structure found in the reference is that which is claimed. The reference must disclose this feature in terms which would be understood by the rational hypothetical person of ordinary skill. As noted above, the term "cartridge" has an ordinary meaning which extends beyond the meaning of "housing." Inamoto does not disclose such a feature at all and cannot be relied upon to suggest the claimed structure, even in part, to the hypothetical person of ordinary skill.

It is submitted that this alone is sufficient to render the rejection untenable.

Kunzuman is relied upon to teach a color wheel and a processor which is disclosed as including an EPROM for storing color wheel values and an index mark "which can be considered a type of memory", mounted on the color wheel itself. However, again we have the improper application of a § 102 "read on" rationale in a § 103 rejection. The index mark cannot be considered a type of memory unless the hypothetical person of ordinary skill would glean this from the disclosure of the reference. Indeed Kunzuman discloses:

The index mark on the color wheel acts as a timing reference to the system electronics, normally the mark occurs just before the red segment moves into the filter path. Typically, this mark is sensed by a sensor that has to be physically moved into the light path to ensure that the timing pulse occurs at the proper time. The use of a sensor board, an example of which is shown in FIG. 5, eliminates this need. The sensor could be magnetic, optical, or even electromechanical to detect the index mark.

This is hardly suggestive of a "memory" being provided on the disc as per the requirements of claim 4, for example.

- 2) The rejection of claim 10 under 35 USC § 103(a) as being unpatentable over Inamoto, Kunzuman and further in view of Nakanishi is respectfully traversed.

The teachings of Nakanishi do nothing to resolve the dilemma which are introduced via the attempt to consider the disclosure of Inamoto as rationally suggesting a removable disc cartridge to the hypothetical person of ordinary skill.

Newly presented Claim

New claim 36 is presented for examination. The subject matter of this claim finds support in specification taken as a whole, particularly paragraph [0009] and is illustrated in Fig. 2. This claim is patentable in that the subject matter set forth therein is neither disclosed in nor suggested by the art applied.

Conclusion

It is submitted that the claims as they stand before the PTO are patentable over the cited art for at least the reasons advanced above. Favorable reconsideration and allowance of this application is courteously solicited.

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